Bringing Sustainability Science to Cambodia

Enabling Transformative Learning and Education through Joint Development of a Curriculum on Sustainable Development

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Initial collaboration between CDE and RUA

CDE and RUA established a partnership in 2016 through the IFAD funded project

Scaling-up sustainable land management (SLM) practices by smallholder farmers in Cambodia: working with agricultural extension services to identify, assess and disseminate SLM practices"

Component A: SLM knowledge base for agricultural extension service

Component B: Evidence-based Decision Support for adoption and scaling-up of SLM practices

Component C: Enhancing policy frameworks for scaling up SLM

Little knowledge at HEI on topic of sustainability and no focus on Education for Sustainable Development (ESD)

IFAD
Investing in rural people

WOCAT

Grant opportunity

Funded by ETH Zürich, Switzerland

Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Confederation

Federal Department of Economic Affairs, Education and Research EAER
State Secretariat for Education, Research and Innovation SERI

ETH
Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich

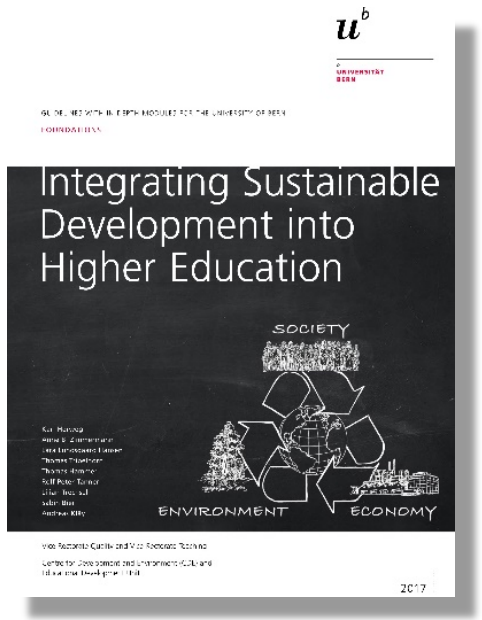
"Bringing sustainability science to Cambodia – Develop a Sustainable Development and Sustainable Land Management curriculum at higher education institutions in Cambodia".

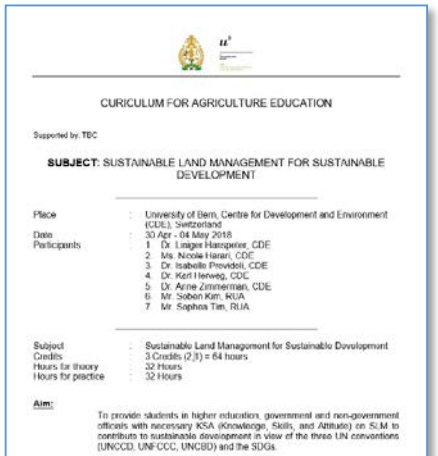
Collaborative process

-> co-creation of knowledge / joint-learning for the RUA and other agriculture-focused higher education institutions in Cambodia.

Integrates Education for Sustainable Development (ESD) approaches, combination of

- innovative didactics, new teaching-learning arrangements, and
- thematic issues of SD and SLM




CURICULUM FOR AGRICULTURE EDUCATION

Supported by: TBC

SUBJECT: SUSTAINABLE LAND MANAGEMENT FOR SUSTAINABLE DEVELOPMENT

Place : University of Bern, Centre for Development and Environment (CDE), Switzerland
Date : 30 Apr - 04 May 2018
Participants : 1. Dr. Lieger Herrperier, CDE
2. Ms. Nicole Harari, CDE
3. Dr. Isabelle Providoli, CDE
4. Dr. Kerl Herweg, CDE
5. Dr. Arnie Zimmerman, CDE
6. Mr. Soben Kim, RUA
7. Mr. Sophea Tim, RUA

Subject : Sustainable Land Management for Sustainable Development
Credits : 3 Credits (2;1) = 64 hours
Hours for theory : 32 Hours
Hours for practice : 32 Hours

Aim:

To provide students in higher education, governmental and non-governmental officials with necessary KSA (Knowledge, Skills, and Attitude) on SLM to contribute to sustainable development in view of the three UN conventions (UNCCD, UNFCCC, UNCBD) and the SDGs.

National Education 2030 Roadmap in Cambodia

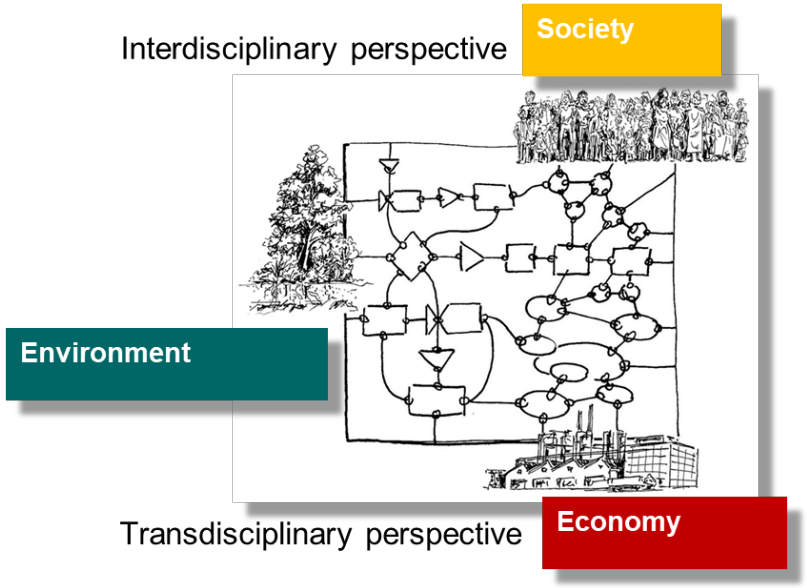
- **National Education 2030 Roadmap for SDG 4**, which provides the overarching framework for long-term holistic education services of good quality, in which:
  - **SDG target 4.7** ensures that **all learners acquire the knowledge and skills needed to promote sustainable development, among others, through education for sustainable development** and sustainable lifestyles;
  - **SDG 4.C** substantially **increases the supply of qualified teachers, including through international cooperation for teacher training**.

- Together with SDG 15 on “Life on Land”, it is an opportunity for Cambodia to **address quality issues in education in combination with addressing the unsustainable use of natural resources and land degradation and to assure life-long learning and employment**.

Joint development of SD-SLM curriculum

5 Thematic chapters

- Chapter 1: Introduction to SD, LD and SLM
- Chapter 2: SLM Technologies and Approaches, and Ecosystem Services
- Chapter 3: SLM and Climate Change
- Chapter 4: Mapping land degradation and SLM by using different tools
- Chapter 5: Decision-support tools for SLM and assessment of ecosystem services
- Chapter 6: Concluding session

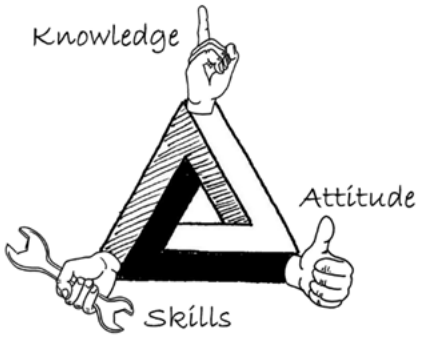


Education for Sustainable Development (ESD) Approach

- Competences needed for Sustainable Development (SD)

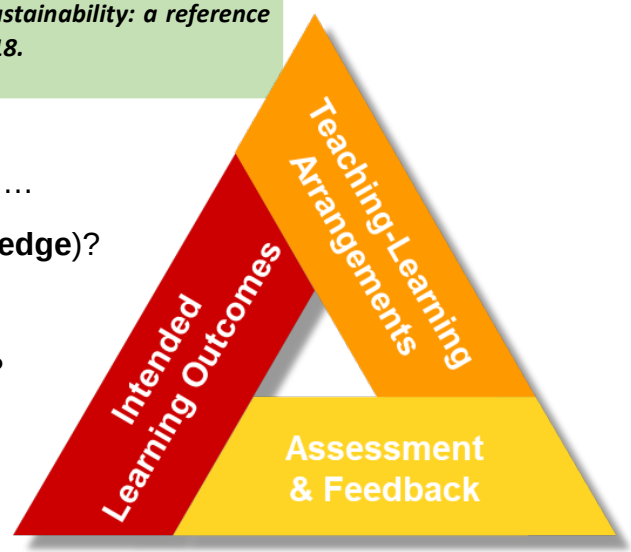
Systems-Thinking Competence: analyse complex systems across different dimensions (ecological, social, economic) and scales (from local to global) related to sustainability issues and problem-solving
Anticipatory Competence: analyse, evaluate, and summarise future visions (rich pictures) related to sustainability issues and sustainability problem-solving
Normative Competence: collect, specify, harmonise, and negotiate actors different sustainability values, principles, goals, and targets
Strategic Competence: design and implement interventions, measures, transformations, and governance strategies toward sustainability.
Interpersonal Competence: motivate, enable, and facilitate collaborative and participatory sustainability research and problem solving; communicate adequately

Adapted from Wiek A, Withycombe L, Redman CL. 2011. Key competencies in sustainability: a reference framework for academic program development. Sustainability Science 6(2):203-218.



At the end of the programme/course …

- What do students know (**knowledge**)?
- What can they do (**skills**)?
- What is their **attitude (values)**?



High-level Launching of SD-SLM curriculum and Training of Trainers (ToT)

- The **High-level official launching event** of the SD-SLM curriculum held on January 13th, 2020 in Phnom Penh
  - 64 participants:
    policy-level officials, donors, HEI lecturers and researchers

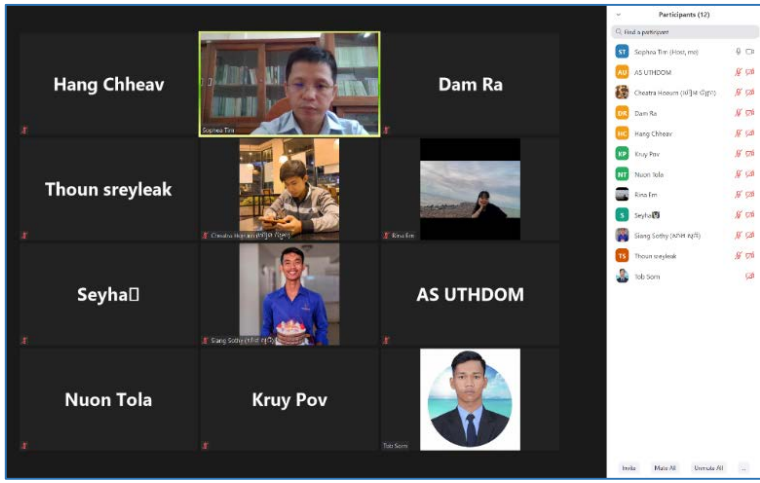
- Followed by a **4.5-days ToT** for 15 RUA's lecturers and researchers, delivered by CDE senior research scientists
  - innovative didactics, new teaching-learning arrangements, and
  - thematic issues of SD-SLM

Piloting the SD-SLM course at RUA

- **Pilot teaching** the SD-SLM course at RUA Faculty of Forestry Science, **BSc. 3rd Year**, since May 2020
  - 3 Credits, 64 hours

- Challenges faced…
  - Lecturer is teaching this course for the first time
  - A lot of content to cover for the BSc level
  - Absorption level of the students limited

- Covid-19 problems:
  - Online teaching – less interaction, internet connection issues
  - ESD in online format is challenging
  - Field work not possible.



A screenshot during the class via Zoom

Outlook: institutionalising ESD approaches at RUA and other HEIs

- Plan to integrate the SD-SLM course in **other relevant BSc Faculties** *(Agronomy, Agriculture Engineering, Rural Development and Land Management and Administration)* and in **MSc programmes**
- Course will be applied in other agriculture based HEIs

- The future vision is that the RUA will become a leading research institution in the field of SD and ESD.